

Claims:

1. A method, comprising:
 - receiving long term satellite tracking data at a remote receiver from a server;
 - computing acquisition assistance data using said long term satellite tracking data at said remote receiver; and
 - receiving satellite signals at said remote receiver using said acquisition assistance data.
2. The method of claim 1, further comprising:
 - computing position of said remote receiver using said satellite signals and said long term satellite tracking data.
3. The method of claim 1, further comprising:
 - decoding ephemeris information from said satellite signals; and
 - computing position of said remote receiver using said satellite signals and said ephemeris information.
4. The method of claim 1, wherein said step of computing acquisition assistance data comprises:
 - determining an estimated position of said remote receiver;
 - determining an estimated time of day; and
 - computing a frequency search window associated with a frequency of said satellite signals using said estimated position, said estimated time of day, and said long term satellite tracking data.
5. The method of claim 4, wherein said step of receiving satellite signals comprises:
 - searching for said satellite signals within said frequency search window.
6. The method of claim 4, wherein said estimated position is a position of a basestation in communication with said remote receiver.

7. The method of claim 6, wherein said step of determining an estimated position comprises:

receiving identification indicia associated with said basestation;

obtaining said position of said basestation from data stored within said remote receiver using said identification indicia.

8. The method of claim 6, wherein said step of determining an estimated position comprises:

receiving identification indicia associated with said basestation;

transmitting said identification indicia to said server; and

receiving said position of said basestation from said server.

9. The method of claim 4, wherein said estimated position is a previously computed position of said remote receiver.

10. The method of claim 4, wherein said estimated time of day is determined using a clock within said remote receiver.

11. The method of claim 1, further comprising:

determining whether said long term satellite tracking data is valid; and

receiving new long term satellite tracking data from said server if said long term satellite tracking data is invalid; and

updating said long term satellite tracking data with said new long term satellite tracking data.

12. The method of claim 1, wherein said long term satellite tracking data is valid for at least six hours into the future.

13. The method of claim 1, wherein said long term satellite tracking data comprises at least one of:

a plurality of satellite positions with respect to time and a plurality of satellite clock offsets with respect to time.

14. The method of claim 1, wherein said long term satellite tracking data comprises at least one of:
 - data representative of satellite positions, satellite velocities, satellite accelerations, satellite clock offsets, satellite clock drifts, and satellite clock drift rates.
15. The method of claim 1, wherein said long term satellite tracking data comprises ephemeris data.
16. The method of claim 15, wherein said ephemeris data comprises blocks of ephemeris valid for at least six hours into the future.
17. The method of claim 1, wherein said long term satellite tracking data comprises a model having at least one of orbital parameters and clock parameters.
18. The method of claim 17, wherein said model comprises a plurality of sequential models valid for at least six hours into the future.
19. The method of claim 1, wherein said long term satellite tracking data is received from said server at said remote receiver using a wireless communication system.
20. The method of claim 1, wherein said long term satellite tracking data is received from said server at said remote receiver using a communication network.
21. The method of claim 1, wherein said long term satellite tracking data is received from said server at said remote receiver using a communication link during a low traffic period.
22. A receiver, comprising:

a communications transceiver for receiving long term satellite tracking data from a server; and
a microcontroller for computing acquisition assistance data using said long term satellite tracking data; and
a satellite signal receiver for receiving satellite signals using said acquisition assistance data.

23. The receiver of claim 22, wherein said microcontroller is configured to compute position of said receiver using said satellite signals.

24. The receiver of claim 22, wherein said communications transceiver is a wireless transceiver.

25. The receiver of claim 22, further comprising:

a clock for providing a time of day;

wherein said microcontroller is configured to determine an estimated position of said remote receiver and compute a frequency search window associated with a frequency of said satellite signals using said estimated position, said time of day, and said long term satellite tracking data.

26. The receiver of claim 22, wherein said long term satellite tracking data is valid for at least six hours into the future.

27. The receiver of claim 22, wherein said long term satellite tracking data comprises at least one of:

a plurality of satellite positions with respect to time and a plurality of satellite clock offsets with respect to time.

28. The receiver of claim 22, wherein said long term satellite tracking data comprises ephemeris information valid for at least six hours into the future.

29. A position location system, comprising:

a remote receiver comprising a satellite signal receiver and a wireless transceiver; and
a server in wireless communication with said remote receiver;
where said server provides long term satellite tracking data to said remote receiver; and
where said remote receiver computes acquisition assistance data using said long term satellite tracking data and receives satellite signal using said acquisition assistance data.

30. The position location system of claim 29, wherein said remote receiver computes position using said satellite signals.

31. The position location system of claim 29, wherein said long term satellite tracking data is valid for at least six hours into the future.

32. The position location system of claim 29, wherein said long term satellite tracking data comprises at least one of:

a plurality of satellite positions with respect to time and a plurality of satellite clock offsets with respect to time.

33. The position location system of claim 29, wherein said long term satellite tracking data comprises ephemeris information valid for at least six hours into the future.

34. A method, comprising:

receiving long term satellite tracking data at a remote receiver from a server;

determining an estimated position of said remote receiver using data stored within said remote receiver; and

computing acquisition assistance data at said remote receiver using said long term satellite tracking data and said estimated position.

35. The method of claim 34, further comprising:

receiving satellite signals at said remote receiver using said acquisition assistance data.

36. The method of claim 34, wherein said estimated position is a position of a basestation in communication with said remote receiver.

37. The method of claim 36, wherein said data stored within said remote receiver comprises a table of basestation positions, and wherein said step of determining comprises:

receiving identification indicia associated with said basestation; and
obtaining said position of said basestation from said table of basestation positions using said identification indicia.

38. The method of claim 37, wherein said identification indicia comprises a cell-ID for said basestation.

39. The method of claim 34, wherein said data stored within said remote receiver comprises a table of recently computed positions, and wherein said estimated position is a previously computed position extracted from said table of previously computed positions.